Town of Vienna

Maple Avenue Renderings

Narrative Report

Wiley|Wilson Comm. No. 210207.00

June 1, 2011

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1.0 INTRODUCTION

The Town of Vienna is evaluating the future development patterns of the Maple Avenue corridor, including the implementation of a Form-based building code and bulk plane standards. In order to investigate the aesthetic impact of development, the Town's Department of Planning and Zoning is studying options for building height and building setback distances that could eventually be codified. Photographic architectural renderings have been created to illustrate these options at three study locations on Maple Avenue. This report provides narrative descriptions to accompany each of the renderings (Sections 2-5), and includes a brief discussion on the benefits and disadvantages of implementing the particular height and setback restrictions that are illustrated (Appendix A). The renderings will serve as a tool used by Planning and Zoning, Town Council Members, and other stakeholders, to facilitate discussions about development along the Maple Avenue corridor.

Areas of study include the 400 block of Maple Avenue, West; the 100 block of Maple Avenue, East; and the 300 block of Maple Avenue, East. For each location, a photograph was taken looking down the street in a cross-sectional view, and across the street in an elevation view. Architectural renderings of new buildings were developed on top of these photos to illustrate various combinations of building heights and building setback distances. Building heights of 35 feet, 50 feet, and 54 feet are shown. Building setback distances of 15 feet and 30 feet are shown.

The photographer produced high resolution images of each location using a Canon Mark 3 digital camera. Lenses were selected to maximize the coverage area of each image, in order to include enough vertical space to represent 54-foot high buildings, and enough horizontal coverage to provide context for the rendered buildings. While maximizing the viewing area, the lens distorts the photographs and creates a warped effect that stretches some objects from their true shape and incline angle. The consultant team tried various approaches that included different camera lenses, camera locations, and an attempt to "stitch" adjacent photos together. Despite the warping problem, the photos selected for the renderings represent the best approach for the purposes of this study.

Buildings were rendered using Autodesk Revit 2011 Building Information Modeling software. The rendered images were then inserted into each corresponding photo location using Adobe Photoshop CS2. A vanishing point was established, and building setback lines were drawn from this point to align the perspective of each building. Refer to Appendix B, Rendering Scale Exhibit, for a sample sketch illustrating the perspective alignment and object scaling process. The placement of rendered buildings was calibrated using field measurements and Google Earth Pro. Refer to Appendix C, Site Plan Scale Exhibit, for a sample plan view sketch illustrating the horizontal dimensioning of rendered building locations.

The inclination of rendered building faces were angled as necessary to match the inclination of existing buildings that were angled due to camera distortion. Existing site features positioned in front of rendered buildings were preserved where possible, such as utility poles and trees.

Renderings of people, light poles, street trees, and site furnishings were added to provide context. The scale of these features was calibrated using field measurements.

The first floor height of all rendered buildings is 15 feet. Subsequent floors are typically 12 feet. The top floor is either reduced to 11 feet or increased to 20 feet as needed to obtain the total building height depicted.

2.0 311-359 Maple Avenue, East

2.1 Location Description

Buildings in this block are between one and three stories with a maximum building height of 35 feet, and setbacks of between 7 and 100 feet from the property line. Many businesses have surface parking abutting the right-of-way and adjacent to or in front of the buildings.

2.2 North Cross Section

Existing Conditions

The intersection of Maple Avenue, East and Branch Road, SE is shown in the North Cross Section. The State Farm Virginia Commerce Bank building is on the right. The parking lot of the PNC Bank is shown on the left with a bus shelter in the foreground. Further to the left is the parking lot for the Maple Avenue Shopping Center. The State Farm building is 35 feet tall and has a setback distance of 7 feet.

Maple Avenue has a 75-foot right-of-way and a 50-foot street width from curb to curb. The combined width of sidewalks and planter boxes is 11 feet on each side of the road. Street trees are located about three feet from the face of curb.

Proposed 15’ Setback and 35’ Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 32 feet and 35 feet on the left and between 35 and 38 feet on the right. Height is measured to the top of the parapet walls.

Building setbacks are between 15 feet and 23 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 36 feet. New street trees are located about three feet from the face of curb.

Proposed 15’ Setback and 50’ Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 47 and 50 feet on the left and between 50 and 53 feet on the right.

Building setbacks are between 15 feet and 23 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 36 feet. New street trees are located about three feet from the face of curb.

Proposed 15’ Setback and 54’ Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 51 and 54 feet on the left and between 54 and 57 feet on the right.

Building setbacks are between 15 feet and 23 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 36 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 35' Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 32 feet and 35 feet on the left and between 35 and 38 feet on the right.

Building setbacks are between 30 feet and 38 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 51 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 50' Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 47 and 50 feet on the left and between 50 and 53 feet on the right.

Building setbacks are between 30 feet and 38 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 51 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 54' Building Height

This rendering shows new buildings on the left and right sides of the street with building heights of between 51 and 54 feet on the left and between 54 and 57 feet on the right.

Building setbacks are between 30 feet and 38 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 51 feet. New street trees are located about three feet from the face of curb.

2.3 East Elevation

Existing Conditions

This is a view looking west at 308 Maple Avenue, East with Glyndon Street, NE on the left. The new unoccupied commercial building is on the left side of the photo, and Vienna Jewelers on the right with a bus shelter in the foreground. The new commercial building has a height of 28 feet. Trees in the backyards of homes on Church Street are visible in the background.

The sidewalk width is 13 feet in front of these buildings. The TD Bank has a setback of about 85 feet from the property line, and the new commercial building has a setback of 15 feet. Shrubs located in the red masonry planter boxes are about three feet from the face of curb.

Proposed 15' Setback and 35' Building Height

This rendering shows new building heights of between 33 feet and 38 feet as measured to the top of the parapet walls. The tops of trees located behind the new buildings are visible.

Building setbacks are between 15 feet and 19 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 32 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

Proposed 15' Setback and 50' Building Height

This rendering shows new building heights of between 48 feet and 53 feet as measured to the top of the parapet walls. The trees behind the new buildings are fully obscured.

Building setbacks are between 15 feet and 19 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 32 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

Proposed 15' Setback and 54' Building Height

This rendering shows new building heights of between 52 feet and 57 feet as measured to the top of the parapet walls.

Building setbacks are between 15 feet and 19 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 32 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

Proposed 30' Setback and 35' Building Height

This rendering shows new building heights of between 33 feet and 38 feet as measured to the top of the parapet walls. The tops of trees located behind the new buildings are visible.

Building setbacks are between 30 feet and 34 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 47 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

Proposed 30' Setback and 50' Building Height

This rendering shows new building heights of between 48 feet and 53 feet as measured to the top of the parapet walls. The trees behind the new buildings are fully obscured.

Building setbacks are between 30 feet and 34 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 47 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

Proposed 30' Setback and 54' Building Height

This rendering shows new building heights of between 52 feet and 57 feet as measured to the top of the parapet walls.

Building setbacks are between 30 feet and 34 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 47 feet. New street trees are located about three feet from the face of curb. In the center of the image, the hardscape extends from the curb to the building line. On the left side, the existing 13'-wide sidewalk is shown with a grassed area beyond.

3.0 100-128 Maple Avenue, East

3.1 Location Description

Buildings in this block and adjacent blocks are between one and three stories with a maximum building height of 35 feet, and setback distances ranging from 0 to 70 feet from the property line. Many businesses have surface parking abutting the right-of-way and adjacent to, or in front, of the buildings. Landmarks in this section of Maple Avenue include the Town Green, the Patrick Henry Library, and the Magruder's Shopping Center.

3.2 South Cross Section

Existing Conditions

The intersection of Maple Avenue and Center Street is shown in the South Cross Section. The INOVA Laboratory is the taller building in the background on the left. The eave of the roof is 25 feet tall. The Patrick Henry Library at right has an eave height of 16 feet. Spruce trees are visible behind the library at right, and the Dominion Virginia Power transmission lines that run along the WO&D Trail can be seen in the distance.

Maple Avenue has a 75-foot right-of-way and a 50-foot street width from curb to curb. The traffic lanes and the turning lane each have 10-foot widths. The combined width of sidewalks and planter boxes is 11 feet on each side of the road. Street trees are located about three feet from the face of curb. The INOVA Laboratory has a setback of only 7 feet from the property line, and a distance of 19 feet to the face of curb. The library has a setback of 11 feet from the property line, and a distance of 24 feet to the face of curb.

Proposed 15' Setback and 35' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 33 feet and 36 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 35 feet. The INOVA Laboratory and bus shelter are seen in the background on the left, and the tops of the spruce trees behind the present-day library are visible at right. The Dominion power line in the distance is obscured by the new buildings.

Building setbacks vary between 15 feet and 23 feet on the left side, with a distance from the building line to the edge of curb of between 28 and 36 feet. On the right side, the new building has a setback distance of 15 feet from the property line. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 50' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 48 feet and 51 feet as measured to the bottom of the parapet walls. The new building on the right side of the street has a height of 50 feet. The INOVA Laboratory and bus shelter are seen in the background on the left, and the tops of the spruce trees behind the present-day library are obscured by the new building.

Building setbacks vary between 15 feet and 23 feet on the left side, with a distance from the building line to the edge of curb of between 28 and 36 feet. On the right side, the new building has a setback distance of 15 feet from the property line. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 54' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 52 feet and 55 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 54 feet. The INOVA Laboratory and bus shelter are seen in the background on the left.

Building setbacks vary between 15 feet and 23 feet on the left side, with a distance from the building line to the edge of curb of between 28 and 36 feet. On the right side, the new building has a setback distance of 15 feet from the property line. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 35' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 33 feet and 36 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 35 feet. The INOVA Laboratory and bus shelter are seen in the background on the left, and the tops of the spruce trees behind the present-day library are visible at right. The Dominion power line in the distance is obscured by the new buildings.

Building setbacks vary between 30 feet and 38 feet on the left side, with a distance from the building line to the edge of curb of between 43 and 51 feet. On the right side, the new building has a setback distance of 30 feet from the property line. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 50' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 48 feet and 51 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 50 feet. The INOVA Laboratory and bus shelter are seen in the background on the left, and the tops of the spruce trees behind the present-day library are obscured by the new building.

Building setbacks vary between 30 feet and 38 feet on the left side, with a distance from the building line to the edge of curb of between 43 and 51 feet. On the right side, the new

building has a setback distance of 30 feet from the property line. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 54' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 52 feet and 55 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 54 feet. The INOVA Laboratory and bus shelter are seen in the background on the left.

Building setbacks vary between 30 feet and 38 feet on the left side, with a distance from the building line to the edge of curb of between 43 and 51 feet. On the right side, the new building has a setback distance of 30 feet from the property line. New street trees are located about three feet from the face of curb.

3.3 East Elevation

Existing Conditions

This is a view looking west at 126-132 Maple Avenue, West. The Vienna Inn is on the left side of the photo, and the Town Green is at right with the Presbyterian Church in the background. The building roofline varies between 9 feet and 16 feet in height. Trees on Church Street are visible in the background, and the Dominion Virginia Power transmission lines that run along the WO&D Trail is overhead.

The combined width of sidewalks and planter boxes is 11 feet in front of these buildings, which have a setback of 5 feet from the property line. Street trees and shrubs located in the red masonry planter boxes are about three feet from the face of curb.

Proposed 15' Setback and 35' Building Height

This rendering shows new building heights of between 32 feet and 35 feet as measured to the top of the parapet walls. Trees on Church Street are obscured by the new buildings, and the Dominion Virginia Power transmission lines that run along the WO&D Trail remain visible.

Building setbacks are 15 feet and 21 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 34 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 50' Building Height

This rendering shows new building heights of between 47 feet and 50 feet as measured to the top of the parapet walls. The Dominion Virginia Power transmission lines that run along the WO&D Trail are obscured by the new buildings.

Building setbacks are 15 feet and 21 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 34 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 54' Building Height

This rendering shows new building heights of between 52 feet and 54 feet as measured to the top of the parapet walls. The Dominion Virginia Power transmission lines that run along the WO&D Trail are obscured by the new buildings.

Building setbacks are 15 feet and 21 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 34 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 35' Building Height

This rendering shows new building heights of between 32 feet and 35 feet as measured to the top of the parapet walls. Trees on Church Street are obscured by the new buildings, and the Dominion Virginia Power transmission lines that run along the WO&D Trail remain visible.

Building setbacks are 30 feet and 36 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 49 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 50' Building Height

This rendering shows new building heights of between 47 feet and 50 feet as measured to the top of the parapet walls. The Dominion Virginia Power transmission lines that run along the WO&D Trail are obscured by the new buildings.

Building setbacks are 30 feet and 36 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 49 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 54' Building Height

This rendering shows new building heights of between 52 feet and 54 feet as measured to the top of the parapet walls. The Dominion Virginia Power transmission lines that run along the WO&D Trail are obscured by the new buildings.

Building setbacks are 30 feet and 36 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 49 feet. New street trees are located about three feet from the face of curb.

4.0 430-444 Maple Avenue, West

4.1 Location Description

Buildings in this block are between one and three stories with a maximum building height of 35 feet, and setback distances of between 15 and 150 feet from the property line. Many businesses have surface parking abutting the right-of-way and adjacent to or in front of the buildings.

4.2 South Cross Section

Existing Conditions

The intersection of Maple Avenue and Nutley Street is shown in the South Cross Section. The commercial building at 431 Maple Avenue, West (Andy's Barber) is the building with the red awning in the background on the left. White Swan Bridal is the taller building just beyond, which has a height of about 25 feet to the top of the parapet wall (same as the roofline), and a setback distance of 16 feet. The Wolftrap Motel is on the right side of the street, with a height of 30 feet to the top of the parapet wall, and a setback distance of 47 feet.

Maple Avenue has a 75-foot right-of-way and a 62-foot street width from curb to curb. The combined width of sidewalks and utility strip is about 8 feet on each side of the road. There are no street trees along this block of Maple Avenue.

Due to the wider roadway section at this location (62' instead of 50'), the distance from curb to the edge of the Right-of-Way is reduced by 6 feet as compared to the other rendered study locations. In order to provide a consistent aesthetic analysis, the rendered views portray a setback distance that is actually 6 feet wider than the nominal 15-foot or 30-foot setback. As a result of this adjustment, the distance from the building faces to the curb are approximately the same as are shown in renderings for the other study locations.

Proposed 15' Setback and 35' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 35 feet and 39 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 35 feet. The White Swan Bridal building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 21 feet and 29 feet on the left side, which allows for a distance from building line to the edge of curb of

between 28 and 36 feet. On the right side, buildings have a setback distance of 21 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 50' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 50 feet and 54 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 50 feet. The White Swan Bridal building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 21 feet and 29 feet on the left side, which allows for a distance from building line to the edge of curb of between 28 and 36 feet. On the right side, buildings have a setback distance of 21 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 54' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 54 feet and 59 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 54 feet. The White Swan Bridal building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 21 feet and 29 feet on the left side, which allows for a distance from building line to the edge of curb of between 28 and 36 feet. On the right side, buildings have a setback distance of 21 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 35' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 35 feet and 39 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 35 feet. The White Swan Bridal building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 36 feet and 44 feet on the left side, which allows for a distance from building line to the edge of curb of between 43 and 51 feet. On the right side, buildings have a setback distance of 36 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 50' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 50 feet and 54 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 50 feet. The White Swan Bridal

building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 36 feet and 44 feet on the left side, which allows for a distance from building line to the edge of curb of between 43 and 51 feet. On the right side, buildings have a setback distance of 36 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 54' Building Height

This rendering shows new buildings on the left side of the street with building heights of between 54 feet and 59 feet as measured to the top of the parapet walls. The new building on the right side of the street has a height of 54 feet. The White Swan Bridal building is seen in the background on the left, and the front edge of the Wolftrap Motel is visible on the right behind the new building.

The building setback distances for the new buildings vary between 36 feet and 44 feet on the left side, which allows for a distance from building line to the edge of curb of between 43 and 51 feet. On the right side, buildings have a setback distance of 36 feet. New street trees are located about three feet from the face of curb.

4.3 East Elevation

Existing Conditions

This is a view looking west at the Tequila Grande Restaurant at 444 Maple Avenue, West. The intersection with Nutley Street is on the right side of the photo, and the Wolftrap Motel is on the left. The Wolftrap Motel has a building height of 30 feet, measured to the top of the parapet wall. The roofline and chimney of a residence behind the restaurant is visible.

The combined width of sidewalks and utility strip is 8 feet in front of these buildings. The Wolftrap Motel has a setback distance of 47 feet. There are no street trees on this block.

Due to the wider roadway section at this location (62' instead of 50'), the distance from curb to the edge of the Right-of-Way is reduced by 6 feet as compared to the other rendered study locations. In order to provide a consistent aesthetic analysis, the rendered views portray a setback distance that is actually 6 feet wider than the nominal 15-foot or 30-foot setback. As a result of this adjustment, the distance from the building faces to the curb are approximately the same as are shown in renderings for the other study locations.

Proposed 15' Setback and 35' Building Height

This rendering shows new building heights of between 32 feet and 35 feet as measured to the top of the parapet walls. The homes behind the new building are obscured.

Building setbacks vary between 21 feet and 33 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 40 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 50' Building Height

This rendering shows new building heights of between 47 feet and 50 feet as measured to the top of the parapet walls. The shadow of the new building can be seen against the right face of the Wolftrap Motel.

Building setbacks vary between 21 feet and 33 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 40 feet. New street trees are located about three feet from the face of curb.

Proposed 15' Setback and 54' Building Height

This rendering shows new building heights of between 51 feet and 54 feet as measured to the top of the parapet walls. The homes behind the new building are obscured.

Building setbacks vary between 21 feet and 33 feet, which allows for a distance from building line to the edge of curb of between 28 feet and 40 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 35' Building Height

This rendering shows new building heights of between 32 feet and 35 feet as measured to the top of the parapet walls. The homes behind the new building are obscured.

Building setbacks vary between 36 feet and 48 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 55 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 50' Building Height

This rendering shows new building heights of between 47 feet and 50 feet as measured to the top of the parapet walls. The shadow of the new building can be seen against the right face of the Wolftrap Motel.

Building setbacks vary between 36 feet and 48 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 55 feet. New street trees are located about three feet from the face of curb.

Proposed 30' Setback and 54' Building Height

This rendering shows new building heights of between 51 feet and 54 feet as measured to the top of the parapet walls. The homes behind the new building are obscured.

Building setbacks vary between 36 feet and 48 feet, which allows for a distance from building line to the edge of curb of between 43 feet and 55 feet. New street trees are located about three feet from the face of curb.

APPENDIX

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A – URBAN DESIGN COMMENTARY

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Lardner/Klein Landscape Architects, P.C.

Memorandum

To: Ed Shea, Wiley/Wilson
From: Elisabeth Lardner, LKLA
RE: **Urban Design Commentary on Maple Avenue Images**
Date: May 30, 2011

I. Project Understanding and L/KLA Work Effort Required

Provide a written narrative describing the pros and cons of the current Town-required building 15' setback and with an increased setback of 30', each setback paired with building heights at 35', 50' and 54'.

Three blocks on Maple Avenue are illustrated in section and elevation.

- 100-128 Maple Avenue, East
- 430-444 Maple Avenue, West
- 311-359 Maple Avenue, East

To minimize repetition, this memorandum first makes observations that are common to all permutations in Section III. Following that, Sections IV, V, and VI discuss specific blocks and scenarios. Section VII makes some alternative suggestions, unrelated to the illustration contents but worth considering for enhanced urban design within the Maple Avenue corridor.

II. Background Information Applicable to all Illustrations

Street Geometry and Measurements

- Setbacks are measured from the right-of-way, NOT from the curb line, per Town of Vienna direction
- New buildings are shown without associated parking or service access – accommodating such will likely radically change their portrayal and appearance
- Maple Avenue today is primarily a five lane roadway (lane width is approximately 10 feet for a curb to curb width of 50 feet), with four lanes for traffic and a fifth lane serving as an alternating turn lane; the roadway has no landscaped median, although there are stretches of narrow concrete median near the intersection with Nutley Street

References for Size and Scale

- LEED Pilot for Walkable Streets (November 2010) calls for a building height to street width ratio of 1:3 – for every foot of building height, there is no more than 3 feet of street width (street width is measured façade to façade)
- *San Francisco Better Streets Plan*, 2010, recommends width for downtown commercial sidewalk to be minimum of 12' and a maximum width of 15', as measured from the building face (façade) to the face of curb; only along a park edge does the width expand beyond these dimensions – extending to 24' in width

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(similar to Maple Avenue pattern today – narrow sidewalks along Maple Avenue with expansion of sidewalk depth at Vienna Town Green plaza)

- San Francisco's Market Street has similar dimensions and traffic level as Maple Avenue, but much taller buildings; street width is 120' from building face to building face; 50' curb to curb; 35' from curb to building face on both sides - (*Great Streets* book by Allen Jacobs, 1993)
- Boulevard Saint-Michel in Paris is also similar dimensionally to Maple Avenue; street width is 98' building face to building face; 50' curb to curb; 24' from curb to building face on both sides - (*Great Streets* book by Allen Jacobs, 1993)
- Cours Mirabeau in Aix-en-Provence, France is similar in size to Maple Avenue: street width is 150' from building face to face; 54' from curb to curb accommodates four lanes of traffic that are interrupted by fountains in the center of the street; 48' from building face to curb on both sides; most buildings four to five stories at a height range from 48' – 60', with some at three stories and highest at 70' - (*Great Streets* book by Allen Jacobs, 1993)
- Concept of Boulevard – three types of street: center median boulevard; boulevard street; multi-way boulevard (*The Boulevard Book*, Jacobs, 2002). Definition of boulevard street, similar to Maple Avenue today in scale and use pattern, is a wide central roadway with broad, tree-lined sidewalks along each side, characterized by gracious tree plantings, wide walkways, anticipation of well designed buildings – example of boulevard street is Boulevard Saint-Michel. The definition of a center median boulevard is a street with a wide landscaped median flanked on either side by roadways and sidewalks. The central median may be a pedestrian promenade, or may be planted with grass, trees, and shrubbery. Streetcar lines or horse trails were often located in the central median. Monument Avenue in Richmond is example of this type of boulevard.

III. Critique of Illustrations - Observations Common to all Illustrations

15' Setback – 35' Building Height

Streetscape/Setback – Drawbacks

- The 15' setback is visually and functionally much wider than 15 feet due to the point from which it is measured – the VDOT right-of-way: the perceived setback between the façade and the face of the curb is approximately 27 feet - 28 feet (an average two-lane road is 24 feet wide, so the setback alone is enough to hold two traffic lanes)
- Actual distance between building facades would be in the range of 28 feet + 50 feet + 28 feet = 106 feet (in scale comparable to ten lanes of traffic; a double loaded parking lot is usually 64 feet wide)
- A setback this functionally deep could easily absorb more streetscape furnishings and plantings than shown – with trees planted in groves or bosques
- The challenge of this amount of pedestrian space is to not overwhelm the pedestrian requires making space into subspaces – it is vast, even at 15 foot setback
- Illustration does not address Complete Streets compatibility request
- To achieve a 'small town' or more 'urban' appearance, the actual setback distance from the curb should be reduced to no more than 15 – 20 feet remaining between the face of the curb and the building facade

Streetscape/Setback - Benefits

- The 15’ setback provides space to accommodate a tree pit for planting (4’-6’), sidewalk space (6 – 8’) and outdoor dining or sculpture area, with 15 or so feet still left over; the remaining space could be used to artfully incorporate bioinfiltration techniques for stormwater management, additional street tree plantings – double row or bosques, etc.
- The illustration shows the elimination of vehicles between the street and building façade; bringing the building façade to the sidewalk and giving the street a more urban or small town character (vs. current image of surface parking as one drives down Maple Avenue)
- Setback could be more attractive if not all hard-surfaced between face of curb and façade of building

The Building Height - Drawbacks

- Height ratio to setback and street cross-section: Maple Avenue is wide, with four lanes of traffic and a fifth, shared, lane for turns – totaling approx width of 50’. With a 30’ practical setback on either side of the curb, building facades are 110’ apart; slightly wider than the LEED Pilot standard of 1:3

The Building Height - Benefits

- Articulated façade breaks up the volume nicely
- Good consistent build-to line or street edge that frames the public realm of the streetscape

15’ Setback – 50’ Building Height

The Streetscape/Setback - Drawbacks

- Same points as 15’ Setback – 35’ Building Height

The Streetscape/Setback - Benefits

- Same points as 15’ Setback – 35’ Building Height

The Building Height - Drawbacks

- Building massing would better meet Town’s bulk plane goals if upper stories were stepped back to reflect façade articulation
- More attention should be paid to detailing and identifying the building base and commercial/office frontage – at the pedestrian scale, that portion of the façade is what will be visible on the street and will create the pedestrian environment – what are the materials, textures, window and doorway fenestration; variation and articulation of the vertical plane at building bases to create diverse and interesting pedestrian environment
- If first, second, or higher (above grade) floor levels of buildings are for parking, façade should be animated and made pedestrian friendly
- More attention should be paid to building base and commercial/office frontage, with focus on lower floors at the pedestrian scale and on elements that will be visible on the street – materials, textures, window and doorway fenestration; frequent variation and articulation of the vertical plane at building bases to create diverse and interesting pedestrian environment
- With increased height of building and depth of pedestrian streetscape space, need to create sub spaces - create outdoor dining areas; art spots, sitting areas, planting areas, etc. space is too expansive and overwhelms the pedestrian

- Buildings appear to have no service or vehicular entrances off of Maple Avenue – is that realistic, or does that paint a picture that is unobtainable?

The Building Height - Benefits

- Four story building better matches the scale of the road width of Maple Avenue
- Ratio of height to street width (façade to façade) is approximately 1:2

15' Setback – 54' Building Height

The Streetscape/Setback - Drawbacks

- Same points as 15' Setback – 35' Building Height

The Streetscape/Setback - Benefits

- Same points as 15' Setback – 35' Building Height

The Building Height - Drawbacks

- Same points as 15' Setback – 50' Height
- Four foot difference in height too subtle to notice a difference in the building appearance – does not gain a floor in height in the representations; would need approximately ten more feet in height to give appropriately scaled first floor and then subsequent floors

The Building Height - Benefits

- Same points as 15' Setback – 50' Height

30' Setback – 35' Building Height

The Streetscape/Setback - Drawbacks

- The 30' setback is visually and functionally much wider than 30' – the distance between the façade and the face of the curb is 42'-43' wide, almost as wide as the existing curb to curb dimensions of Maple Avenue (50'); large enough to provide one row of head-in parking and a travel lane and slightly more shallow than the Plaza at the Town Green; (130 feet is comparable to 12 lanes of traffic! – not small town and not urban but very suburban in feel and appearance)
- Could use more substantial streetscape - bigger trees, or groves/bosques of trees given the extreme width of the space between the building façade and the face of curb
- Removes considerable amount of potential commercial square footage from development (tax revenue) and may make some parcels not economical for redevelopment (need to check parcel depth along Maple Avenue to determine if still viable to develop and to grant 30' setback to public open space with market conditions)
- Does not address Complete Streets compatibility request

The Streetscape/Setback - Benefits

- The 30' setback more than provides space to accommodate tree pits for planting (4'-6'), sidewalk space (6 – 8') and outdoor dining or sculpture area, with space remaining for bioinfiltration for stormwater management, additional street tree plantings – double row or bosques
- Elimination of car between street and building façade in illustration; but with such vast space available, drop-offs and temporary vehicular access may make sense

The Building Height - Drawbacks

- Height ratio to setback and street cross-section: Maple Avenue is wide, with four lanes of traffic and a common lane for turns – approx width of 50'. With a 40'+ setback on either side of the roadway (after combining VDOT r-o-w with 30' setback) building faces are 130' apart; 25' wider (the width of a two-lane road) than the LEED Pilot standard of 1:3
- Vehicular access – with such a deep setback, missed opportunity to provide drop-off facility or some interim parking within the 30 foot setback – not appropriate on all sites, but should be considered; model is the Residence Inn on Duke Street in Old Town Alexandria

The Building Height - Benefits

- Good consistent build-to line or street edge that frames the public realm of the streetscape
- Elimination of car between street and building façade

30' Setback – 50' Building Height

The Streetscape/Setback - Drawbacks

- Same points as 30' Setback – 35' Building Height

The Streetscape/Setback - Benefits

- Same points as 30' Setback – 35' Building Height

The Building Height - Drawbacks

- Same points as 15' Setback – 50' Building Height

The Building Height - Benefits

- Same points as 15' Setback – 50' Building Height
- Height ratio to setback and street cross-section: Maple Avenue is wide, with four lanes of traffic and a common lane for turns – approx width of 50'. With a 40'+ setback on either side of the roadway (after combining VDOT r-o-w with 30' setback) building faces are 130' apart; meets LEED Pilot standard of 1:3

30' Setback – 54' Building Height

The Streetscape/Setback - Drawbacks

- Same points as 30' Setback – 35' Building Height

The Streetscape/Setback - Benefits

- Same points as 30' Setback – 35' Building Height

The Building Height - Drawbacks

- Four foot difference in height too subtle to notice a difference in the building appearance – does not gain a floor in height in the representations; would need approximately ten more feet in height to give appropriately scaled first floor and then subsequent floors
- Same points as 15' Setback – 50' Building Height

The Building Height - Benefits

- Same points as 15' Setback – 50' Building Height

IV. 100-128 Maple Avenue East block – Additional Observations

Location of Images

- Cross section is cut at the intersection of Maple Avenue and Center Street, looking towards the east on Maple Avenue
- Elevation is taken mid-block on Maple Avenue, between Center Street and Mill Street, looking north at the cluster of buildings that includes the Twig House, between the Vienna Inn to the west and the Vienna Town Green (VTG) and W&OD Trail to the east
- Existing curb-to-curb width is 48'-50'. Existing VDOT right-of-way is 75', equally split on either side of the current centerline

15' Setback – 35' Building Height

The Streetscape/Setback - Drawbacks

- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space at the plaza in front of the Town Green at the VTG plaza
- Space is not lively, nor making use of setback

The Streetscape/Setback - Benefits

- Strong streetwall established, with some articulation/depth differences of façade on north side

The Building Height - Drawbacks

- Building height does not enhance sense of urban or small town Main Street character given the ratio of building height to façade to façade width

The Building Height - Benefits

- The 35' building height will not create as deep of an afternoon shadow on the VTG (southwest light), located to the building's east in the elevation
- Nice variation in building heights – although staying at 35' target

15' Setback – 50' Building Height

The Streetscape/Setback - Drawbacks

- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space of the VTG plaza

The Streetscape/Setback - Benefits

- Proportion between building height and façade to façade is better proportioned

The Building Height - Drawbacks

- Will cast long shadow on the Town Green - Consider employing a building step back at the second or third floor level, particularly for buildings that will adversely shadow public open space such as the Town Green

The Building Height - Benefits

- Elevation illustrations make use of awnings to indicate primary entrances – good example of technique to highlight unique façade elements; awnings not shown on section views
- Good example of fairly transparent ground floor adjacent to the streetscape

15' Setback – 54' Building Height

The Streetscape/Setback - Drawbacks

- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space as VTG plaza

The Streetscape/Setback - Benefits

- Same as 15' /35' and 15'/50'

The Building Height - Drawbacks

- Will cast long shadow on the Town Green
- Four foot addition is not discernable in illustrations

The Building Height - Benefits

- Same as listed for 15' Setback/50' Building Height

30' Setback – 35' Building Height

The Streetscape/Setback - Drawbacks

- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space at VTG plaza

The Streetscape/Setback - Benefits

- None

The Building Height - Drawbacks

- Same as 15' /35'

The Building Height - Benefits

- The 35' building height will not create as deep of an afternoon shadow on the VTG (southwest light), located to the building's east in the elevation
- Articulated façade breaks up the volume nicely

30' Setback – 50' Building Height

The Streetscape/Setback - Drawbacks

- Same as listed for 30' Setback/35' Height
- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space at VTG plaza

The Streetscape/Setback - Benefits

- Same as listed for 30'/35'

The Building Height - Drawbacks

- Will cast long shadow on Vienna Town Green (appears in elevation image to encroach on trail)

The Building Height - Benefits

- Articulated façade breaks up the volume nicely
- Better proportioned for width of Maple Avenue, although setback is still extensive

30' Setback – 54' Building Height

The Streetscape/Setback - Drawbacks

- Will cast long shadow on the Town Green
- Sidewalk/setback from curb width becomes as deep as VTG, negating the design notion of a more narrow sidewalk leading the pedestrian to a deeper space as VTG plaza

The Streetscape/Setback - Benefits

- None

The Building Height - Drawbacks

- Same as listed for 30' Setback/50' Building Height

The Building Height - Benefits

- Same as 30'/50'; four foot increase in height is not discernable

V. 430-444 Maple Avenue, West Additional Observations

Location of Images

- Cross section is cut at the intersection of Maple Avenue and Nutley Street, looking towards the east on Maple Avenue
- Elevation is taken just east of the intersection looking south towards the Tequila Grande restaurant and the three-story Vienna Wolf Trap Inn
- Existing curb-to-curb width is one lane wider than the other study areas – area is dedicated to a paved narrow median. Width from curb to curb is approximately 65'; five lanes wide.

15' Setback – 35' Building Height

The Streetscape/Setback - Drawbacks

- Out of proportion

The Streetscape/Setback - Benefits

- Reflects most existing build to lines, continues streetwall although the Wolf Trap Inn is farther setback

The Building Height - Drawbacks

- Ratio skewed – height not proportional to width

The Building Height - Benefits

- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section

15' Setback – 50' Building Height

The Streetscape/Setback - Drawbacks

- Same as 15'/35'

The Streetscape/Setback - Benefits
- Same as 15'/35'

The Building Height - Drawbacks
- None

The Building Height - Benefits
- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section
- Height better proportioned to width at Nutley intersection

15' Setback – 54' Building Height
The Streetscape/Setback - Drawbacks
- Same as 15'/35'

The Streetscape/Setback - Benefits
- Same as 15'/35'

The Building Height - Drawbacks
- Additional four feet is not discernable

The Building Height - Benefits
- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section
- Height better proportioned to width at Nutley

30' Setback – 35' Building Height
The Streetscape/Setback - Drawbacks
- Width even greater due to existing median, skew proportion with building height

The Streetscape/Setback - Benefits
- None

The Building Height - Drawbacks
- Too low at intersection; scale is 'lost'

The Building Height - Benefits
- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section

30' Setback – 50' Building Height
The Streetscape/Setback - Drawbacks
- Same as 30'/35'

The Streetscape/Setback - Benefits
- Same as 30'/35'

The Building Height - Drawbacks

- Same as 30'/35'

The Building Height - Benefits
- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section
- Height better proportioned to street width

30' Setback – 54' Building Height
The Streetscape/Setback - Drawbacks
- Same as 30'/35'

The Streetscape/Setback - Benefits
- Same as 30'/35'

The Building Height - Drawbacks
- Same as 30'/35'
- Four foot increase is not discernable

The Building Height - Benefits
- Nice variation in building massing, with recessed center block of building providing way to give better human scale to section
- Height better proportioned to street width

VI. 311-359 Maple Avenue, East Additional Observations

Location of Images
- Cross section is cut at the intersection of Maple Avenue and Branch Road SE (approx. 29.5 feet curb to curb), looking towards the west on Maple Avenue
- Elevation is taken at the northeast quadrant of the intersection of Glyndon Street NE and Maple Avenue (width approximately 54.5 feet gutter to crosswalk edge), looking northwest. Existing curb-to-curb width is 48'-50'. Existing VDOT right-of-way is 75', equally split on either side of the current centerline

15' Setback – 35' Building Height
The Streetscape/Setback - Drawbacks
- Existing use of setback at State Farm building mitigates challenge of width of setback

The Streetscape/Setback - Benefits
- Existing mix of landscape and hardscape is better proportion and use of wide/deep setback

The Building Height - Drawbacks
- Out of scale with width between building facades

The Building Height - Benefits
- More in scale with existing building; better streetwall than surface parking

15' Setback – 50' Building Height
The Streetscape/Setback - Drawbacks

- Width is deep, better mixed with landscape plantings that as shown with total hardscape

The Streetscape/Setback - Benefits
- Same as 15'/35'

The Building Height - Drawbacks
- None

The Building Height - Benefits
- Very different appearance from existing image – street wall along both sides of Maple Avenue – narrows perception of roadway

15' Setback – 54' Building Height
The Streetscape/Setback - Drawbacks
- Same as 15'/35'

The Streetscape/Setback - Benefits
- Same as 15'/35'

The Building Height - Drawbacks
- Same as 15'/50'
- Four foot increase is not discernable

The Building Height - Benefits
- Very different appearance from existing image – street wall along both sides of Maple Avenue – narrows perception of roadway

30' Setback – 35' Building Height
The Streetscape/Setback - Drawbacks
- Setback is totally paved (hardscape); intense contrast with existing landscape planting in existing setback at State Farm building

The Streetscape/Setback - Benefits
- None

The Building Height - Drawbacks
- Not proportional to width of street or existing building

The Building Height - Benefits
- Improvement over surface parking, established a street wall

30' Setback – 50' Building Height
The Streetscape/Setback - Drawbacks
- Same as 30'/35'

The Streetscape/Setback - Benefits
- Same as 30'/35'

The Building Height - Drawbacks
- None

The Building Height - Benefits
- Better proportioned to existing width

30' Setback – 54' Building Height
The Streetscape/Setback - Drawbacks
- Same as 30'/35'

The Streetscape/Setback - Benefits
- Same as 30'/35'

The Building Height - Drawbacks
- Same as 30'/35'; four feet increase is not discernable

The Building Height - Benefits
- Same as 30'/35'

VII. General Recommendations to Expand Concept

- Use VDOT right-of-way differently, expand and create center median that is 16' – 20' deep (wide enough for tree planting to meet standards) and reduce the VDOT right-of-way between the curb face and building façade; provide pedestrian refuge within median at crosswalks
- Consider addition of bike lane and/or parking lanes along Maple Avenue for additional safety measures – concept of Complete Streets
- Bulb-outs to protect parking areas, reduce pedestrian crossing distances
- Implement flexible parking concept – create parking spaces along stretches of Maple Avenue that can periodically be closed to parking and used by adjacent businesses for outdoor seating, bike storage, temporary plantings or art displays (see Mountain View, CA – converted four lane arterial into three lane pedestrian oriented Main Street; NYC, NY)
- Consider varying build to line along Maple Avenue, with concentrations and more dense/intensity near the center of Town – The Town Green?, by Nutley, by Courthouse Road; perhaps incorporate medians in those locations to serve as splitters for traffic calming as well as visual waystations and pedestrians refuges; don't allow vehicles between curb face and building façade within those concentrations; in other stretches do allow vehicles and deeper setbacks to accommodate drop offs such as the one at the Residence Inn on Duke Street in Old Town Alexandria.
- Need to address ground-floor commercial – is it realistic to require the full length of Maple Avenue, or better to have concentrated nodes, say at the heart of the Town near the Town Green, with more residential uses worked in towards the east (separating retail/commercial area distinctly from Tyson's creep) and towards the west with perhaps an intensification near Courthouse Road intersection or Nutley intersection?
- Can innovative stormwater management be incorporated in the streetscape design? Look towards Portland, Oregon examples where some stormwater treatment becomes streetscape art

B – RENDERING SCALE EXHIBIT

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C - SITE PLAN SCALE EXHIBIT

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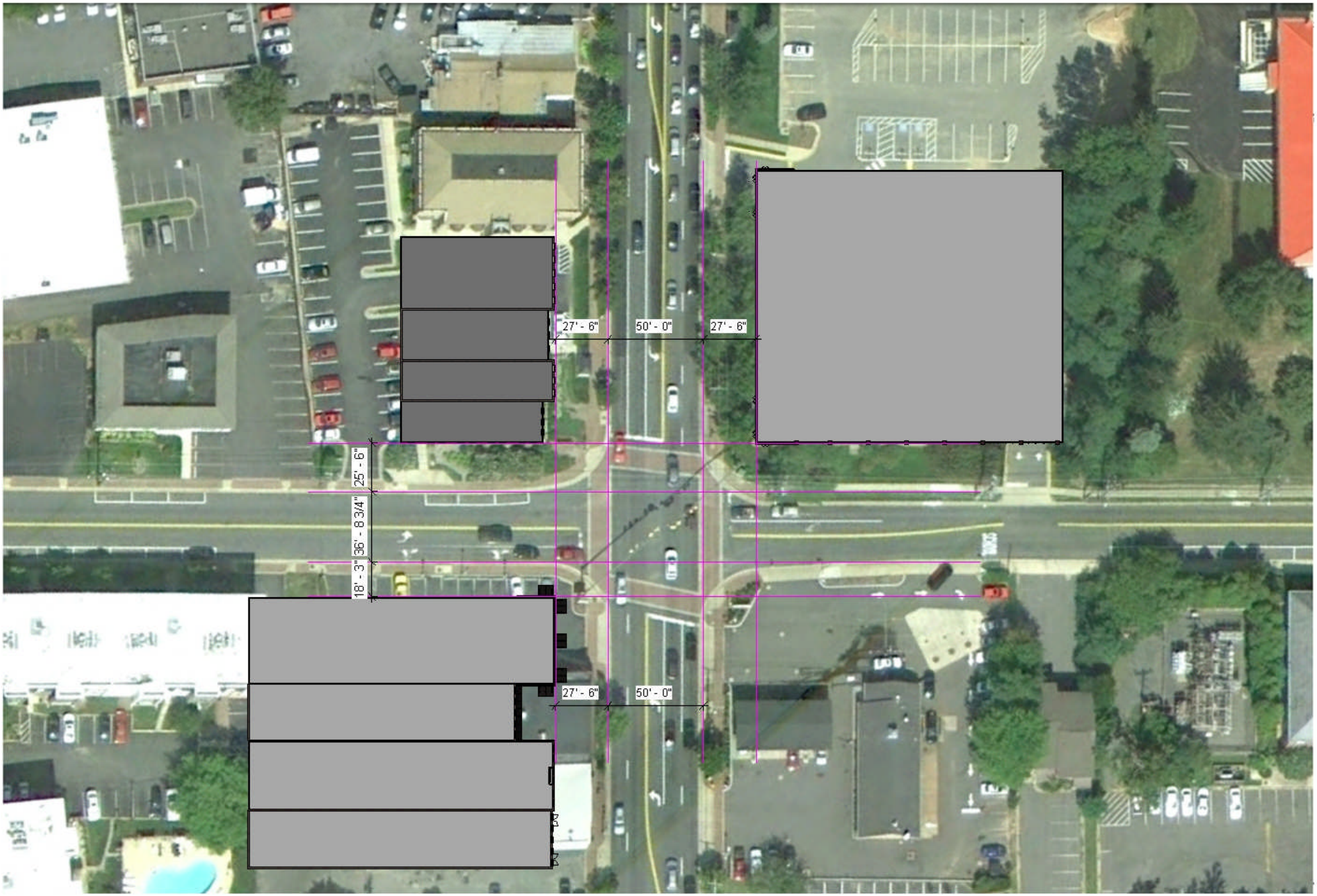
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